

APPENDIX D. Conservation Targets for Steigerwald Lake, Franz Lake and Pierce National Wildlife Refuges

Conservation targets are the elements of biological diversity that we seek to conserve within a planning site. Biodiversity occurs at various taxonomic levels (family, genus, species, subspecies, population) and landscape scales (refuge, ecosystem, national, international). It is impossible to plan for all of the known and potential species and communities that constitute the biodiversity of any given site. Therefore, it is necessary to focus on a subset of naturally occurring elements that represent or capture the full range of biodiversity for a site. The following list of species, species groups, and communities represents the biodiversity of Steigerwald Lake, Franz Lake, and Pierce National Wildlife Refuges (the Gorge Refuges). These conservation targets help to guide conservation strategies that maintain and, where appropriate, restore, biological integrity, biological diversity, and environmental health, while achieving the purposes of the Gorge Refuges.

Scientific Name	Common Name	Rationale / Description (<i>codes listed at end of table</i>)
<u>Mammals</u>		
<i>Corynorhinus townsendii townsendii</i>	Townsend's western big-eared bat	Maternity colonies and hibernacula are extremely sensitive to disturbance. (2, 5, 9)
<i>Microtus canicaudus</i>	gray-tailed vole	Gorge Refuges are at edge of species' known range. (5, 7, 9)
<i>Myotis yumanensis</i>	Yuma myotis bat	Represents importance of protecting roost sites. (5, 9)
<i>Sciurus griseus</i>	western gray squirrel	Declining. Several disjunct populations in WA. West-end of Gorge is considered peripheral range. (5, 9)
<i>Thomomys talpoides douglasii</i>	brush prairie pocket gopher	Highly localized distribution. Requires a mix of native grassland and forest. (1, 5, 9)
<u>Birds</u>		
<i>Ardea herodias</i>	great blue heron	Gorge Refuges provide foraging area in close proximity to nesting colony on Reed Island. (6, 9)
<i>Branta canadensis</i>	Canada goose	Optimal foraging habitat currently being maintained on Gorge Refuges (6, 8)
<i>Catharus ustulatus</i>	Swainson's thrush	(4, 6)

Scientific Name	Common Name	Rationale / Description (<i>codes listed at end of table</i>)
<i>Chaetura vauxi</i>	Vaux's swift	(4, 5, 9)
<i>Circus cyaneus</i>	northern harrier	(4)
<i>Coccyzus americanus</i>	yellow-billed cuckoo	Extirpated from Washington State. (3, 4, 6, 9)
<i>Contopus cooperi</i>	olive-sided flycatcher	(3, 4, 6, 9)
<i>Dendroica petechia</i>	yellow warbler	Frequently victimized by cowbird parasitism. Close association with subcanopy of tall shrubs. (4, 6)
<i>Empidonax traillii brewsteri</i>	willow flycatcher	Viability tied to structurally diverse cottonwood-willow stands. (4, 6, 9)
<i>Falco peregrinus</i>	peregrine falcon	(3, 5, 6, 8, 9)
<i>Haliaeetus leucocephalus</i>	bald eagle	Low productivity in lower Columbia River. (2, 5, 6, 8, 9)
<i>Melanerpes lewis</i>	Lewis's woodpecker	(3, 4, 5, 6, 9)
<i>Progne subis</i>	purple martin	(4, 5, 6, 8, 9)
<i>Selasphorus rufus</i>	rufous hummingbird	(3, 4, 6, 9)
<i>Sitta carolinensis aculeata</i>	slender-billed white-breasted nuthatch	Significant loss of oak habitat in Gorge. Selects large patches of oak habitat. (4, 5, 9)
<i>Sturnella neglecta</i>	western meadowlark	Selects large grassland patches. (4, 6, 9)
<i>Thryomanes bewickii</i>	Bewick's wren	Habitat has shrub understory. (4, 6)
various	dabbling ducks and other waterfowl	Alteration of pre-settlement hydrology severely reduced seasonally flooded areas. Habitat for wintering dabblers (ringneck duck) and breeding wood ducks is limited. (6, 8, 9)

Scientific Name	Common Name	Rationale / Description (<i>codes listed at end of table</i>)
<u>Herpetofauna</u>		
<i>Ambystoma gracile</i>	northwestern salamander	Although the species has a broad distribution in WA, only a few breeding populations are recorded for southwest Washington. The Refuges may be a significant site. (8)
<i>Bufo boreas</i>	western toad	Breeding population at Pierce. (5, 8, 9)
<i>Clemmys marmorata</i>	western pond turtle	The long-term survival of turtles released at Pierce is uncertain, as is the potential for establishing a viable population. (1, 5, 8, 9)
<i>Dicamptodon tenebrosus</i>	Pacific giant salamander	Indian Mary Creek drainage contains suitable medium to high gradient stream habitat. (1, 9)
<i>Plethodon larselli</i>	Larch Mountain salamander	Records from within the vicinity of Franz Lake NR suggest it may occur in the Indian Mary Creek drainage. (1, 5, 7, 8, 9)
<i>Rana aurora</i>	red-legged frog	(5, 9)
<i>Rhyacotriton cascadae</i>	Cascade torrent salamander	Recorded from Indian Mary Creek. (1, 5, 7, 8, 9)
<u>Fishes</u>		
<i>Lampetra richardsoni</i>	western brook lamprey	Documented at Steigerwald Lake NWR. (6, 8)
<i>Lampetra tridentata</i>	Pacific lamprey	Documented at Steigerwald Lake NWR. (6, 8, 9)
<i>Oncorhynchus keta</i>	chum salmon	Spawning, rearing and migration habitat occurs at Pierce NWR. Chum also spawn in mainstem. (2, 5, 6, 8, 9)
<i>Oncorhynchus kisutch</i>	coho salmon	(2, 5, 6, 8)
<i>Oncorhynchus mykiss</i>	steelhead	(2, 5, 6, 8)
<i>Oncorhynchus tshawytscha</i>	Chinook salmon	(2, 5, 6, 8)
<i>Salvelinus confluentus</i>	bull trout	None have been recorded from Gorge Refuges but species is known to occur in vicinity of Bonneville Dam. (1, 2, 5, 6, 8, 9)

Scientific Name	Common Name	Rationale / Description (<i>codes listed at end of table</i>)
<u>Vascular Plants</u>		
<i>Aster curtus</i>	white-top aster	Assumed to be extirpated from WA. (1, 5, 7, 9)
<i>Cimicifuga elata</i>	tall bugbane	Habitat is moist, shady forest at low elevations. (1, 5, 9)
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	(1, 2, 5, 7, 9)
<i>Rorippa columbiae</i>	Columbia yellowcress	(1, 5, 8, 9)
<u>Plant Communities</u>		
<i>Quercus garryana</i> / <i>viburnum ellipticum</i> - <i>toxicodendron</i> <i>diversiloba</i> forest	Oregon white oak /oval-leaf viburnum - poison oak	(1, 5, 7, 8, 9)

Target Selection Rationale Codes:

- 1 Imperiled or Vulnerable (includes Global Rank G1 - G3)
- 2 Federal Endangered Species Act status (includes proposed, threatened or endangered)
- 3 Federal Bird of Conservation Concern (2001 list)
- 4 Partners-in-Flight focus species
- 5 State rank (includes sensitive, candidate, threatened or endangered)
- 6 Explicitly included in Refuge purposes
- 7 Endemic
- 8 Local interest or concern
- 9 Conservation target identified in Willamette Valley-Puget Trough- Georgia Straits Ecoregional Assessment (The Nature Conservancy)